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IN THE CLAIMS

The following marked up listing of claims replaces all prior versions, and listings, of claims in the application.

Marked Up Listing of Claims

1. (Original) An apparatus for a communication system, comprising:
a decoder element for decoding a plurality of received samples to provide decoded half-symbols, wherein the decoder element is configured to perform decoding with a decoding channelization symbol having a length (T) that is half the length (2T) of a covering channelization symbol used to cover the received samples; and
a first multiplier for receiving the decoded half-symbols and pilot symbols to provide demodulated half-symbols.
2. (Original) The apparatus of claim 1, wherein the received samples are despread received samples, further comprising:
a second multiplier for producing the despread received samples.
3. (Original) The apparatus of claim 1, further comprising:
a combiner for combining the demodulated half-symbols received from the first multiplier.
4. (Original) The apparatus of claim 3, wherein the combiner comprises:
a first accumulator for accumulating the demodulated half-symbols corresponding to a first half of a symbol period; and
a second accumulator for accumulating the demodulated half-symbols corresponding to a second half of the symbol period.
5. (Original) The apparatus of claim 1, further comprising:
a switch for selectively outputting the demodulated half-symbols corresponding to a first half of the symbol period and the demodulated half-symbols corresponding to a second half of the symbol period.

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6-16 (Cancelled).

17. (Original) A communication system, comprising:

a transmitter; and

a receiver for processing a received signal transmitted from the transmitter, said receiver including:

a decoder element for decoding a plurality of received samples to provide decoded half-symbols, wherein the decoder element is configured to perform decoding with a decoding channelization symbol having a length (T) that is half the length (2T) of a covering channelization symbol used to cover the received samples; and

a first multiplier for receiving the decoded half-symbols and pilot symbols to provide demodulated half-symbols.

18. (Original) The communication system of claim 17, wherein the received samples are despread received samples, further comprising:

a second multiplier for producing the despread received samples.

19. (Original) The communication system of claim 17, further comprising:

a combiner for combining the demodulated half-symbols received from the first multiplier.

20. (Original) The communication system of claim 19, wherein the combiner comprises:

a first accumulator for accumulating the demodulated half-symbols corresponding to a first half of a symbol period; and

a second accumulator for accumulating the demodulated half-symbols corresponding to a second half of the symbol period.

21. (Original) The communication system of claim 17, further comprising:

a switch for selectively outputting the demodulated half-symbols corresponding to a first half of the symbol period and the demodulated half-symbols corresponding to a second half of the symbol period.

22-32. (Cancelled).

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33. (Original) A method for processing a received signal in a wireless communication system, comprising:

discovering a plurality of received samples to provide discovered half-symbols, wherein the discovering is performed with a discovering channelization symbol having a length (T) that is half the length ($2T$) of a covering channelization symbol used to cover the received samples; and

receiving the discovered half-symbols and pilot symbols to provide demodulated half-symbols by a multiplier.

34. (Original) The method of claim 33, further comprising:
despreading the received samples.

35. (Original) The method of claim 33, further comprising:
combining the demodulated half-symbols received from the multiplier.

36. (Original) The method of claim 35, wherein said combining further comprises:
accumulating the demodulated half-symbols corresponding to a first half of a symbol period in a first accumulator; and
accumulating the demodulated half-symbols corresponding to a second half of the symbol period in a second accumulator.

37. (Original) The method of claim 33, further comprising:
selectively outputting the demodulated half-symbols corresponding to a first half of the symbol period and the demodulated half-symbols corresponding to a second half of the symbol period.